

REMARKS

Claims 1-17 and 29-47 are currently pending.

In the Figures:

Figure 2 has been amended to correct a typographical error at state 120. When the question is answered affirmatively, the application should proceed to state 130. When the question is answered negatively, the application should proceed to state 135. No new matter has been added as this aspect was explicitly discussed in the detailed description and within the original claims. Entry of this amendment is courteously solicited.

In the Specification:

Paragraph 11 has been amended to correct ministerial typographical errors. Specifically paragraph 11 has been amended to conform and agree with Figure 2 and the original claims. Specifically the paragraph has been amended to state, "if command M is a read command, the read operation is performed according to the op code and parameters stored in the queue entry for command M 135." No new matter has been added as this aspect was explicitly discussed in the Figures, Detailed Description, and the original claims. Entry of this amendment is courteously solicited.

35 U.S.C. §112

The Examiner rejected claims 1-17 and 34-36 under §112 ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner bears the burden of providing evidence of a prima facie case to support the rejection of a patent application. In relation to §112 ¶2, the Examiner has the burden of showing first that the proposed claim language is indefinite to one of skill in the art. The CCPA has stated that "by statute 35 U.S.C. 112, Congress has placed no limitations on *how an applicant claims his invention*, so long as the specification concludes with claims which particularly point out and distinctly claim that invention."

In re Pilkington, 411 F.2d 1345, 1349-50, 162 USPQ 145, 148 (C.C.P.A. 1969). Moreover, it ***is not the normal function of a claim to disclose the invention, but to point out the features of novelty*** in the invention as disclosed in the specification and drawing of the application. *Bocciarelli v. Huffman*, 232 F.2d 647, 109 USPQ 385, 388 (C.C.P.A. 1956). The Federal Circuit Court of Appeals has stated that the law is clear that if the claims, read in light of the specification, reasonably apprise those skilled in the art of the use and scope of the invention, and the language is as precise as the subject matter permits, the claims are definite under Section 112, second paragraph. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed. Cir.). The Examiner has simply not meant the burden discussed above.

The Examiner stated that limitations of Claim 1 are uncertain as to their metes and bounds due to certain qualifications which the Examiner states make the claim unclear as to what happens if the qualification is not met. Claim 1 has been amended to more distinctly point out that which is the invention. However, it is implicit from the claims that if a qualification is not met, then the next step does not occur. Further, as stated above, the Applicant does not have to claim every option that may occur in a process, they need only to simply point out the features of novelty, of which the Applicant has. Therefore, the Examiner has not met his burden.

A similar argument can be made for claims 2, 4, and 8-10. Therefore, claims 2, 4, and 8-10 should not be rejected under section 112. Claims 3, 5-7, and 11-17 depend from base claim 1, therefore, the rejection under section 112 of claims 3, 5-7, and 11-17 should be withdrawn.

Claims 34-36 were rejected because of the use of trademarks within. Claims 34-36 have been amended to remove the trademarks and therefore the section 112 rejection should be withdrawn.

The Examiner rejected claims 5 and 6 based upon section 112 stating that they were incomplete for omitting essential steps, such omission amounting to a gap between the steps. Applicant assumes that the Examiner did not notice that claims 5 and 6 are two totally separate claims both relying on claim 1. Claims 5 and 6 do not depend on one another nor are they related. Claims 5 and 6 each disclose a different aspect of embodiments of the present invention. Therefore, claims 5 and 6 must be examined

separately and cannot be examined together or in light of each other. Applicant respectfully requests withdrawal of the 112 rejection.

35 U.S.C. §101

The Examiner rejected claims 1, 2, and 4 under 35 U.S.C. §101 stating the claimed invention is directed to non-statutory subject matter. The Examiner further states that claim 1 appears to be a computer program or logic per se which is not statutory subject matter. The Examiner further states that claim 1 does not produce a useful, concrete, or tangible result.

After a thorough reading of the Interim Guidelines for Subject Matter Eligibility, Applicant finds no evidence that computer programs or logic are not statutory subject matter. In fact, the Guidelines state almost the opposite. The Guidelines state that descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “Nonfunctional descriptive material” includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Both types of “descriptive material” are nonstatutory *when claimed as descriptive material per se*. *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material *is recorded on some computer-readable medium* it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (*claim to data structure stored on a computer readable medium that increases computer efficiency held statutory*) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (*claim to computer having a specific data structure stored in memory held statutory product-by-process claim*) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (*claim to a data structure per se held nonstatutory*).

Claim 1 as amended recites “a method for performing input/output operations on a *memory* by traversing a *queue* of commands.” It is clear from claim 1 that the method for performing input/output operations is done on a tangible medium, the memory. Further, the method interacts with a tangible medium, a queue which stores commands on a tangible medium. Therefore, similar to the *In re Lowry* and *Warmerdam* cases cited above, claim 1 is structurally and functionally interrelated to the medium (memory and queue) and is statutorily patentable since the memory and queue permit the function of the method to be realized. In fact, claim 1 has much more structure to it when seen in light of claim 1 of the issued Langendorf et. al. reference (Langendorf)(U.S. Pat. No. 6,047,334), which the Examiner has cited against the present application. Therefore, Applicant respectfully requests the Examiner withdraw the 101 rejection for claim 1.

Claims 2 and 4 depend from allowable base claim 1; therefore, Applicant respectfully requests the Examiner withdraw the 101 rejection for claims 2 and 4.

35 U.S.C. §102

Claim 1 was rejected as anticipated by Langendorf under §102(b). The Federal Circuit has stated that “anticipation requires the disclosure in a single prior art reference of each element of the of the claim under consideration.” *W.L. Gore & Assocs. V. Garlock*, 721 F.2d 1540, 220 USPQ 330 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). However, it is not enough that the prior art reference disclose all the claimed elements in isolation. “Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim*.” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984). “There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” The Examiner has not met the burden of evidence of *prima facie* anticipation as will be shown below.

Claim 1 as amended recites “A method for performing input/output operations on a memory by traversing a queue of commands, comprising: accessing a queue entry of *a queue of commands*.” By contrast, “as shown in FIG. 4, the write command WR1 has been enqueued in the *write command queue* 31, and the two read commands, RD1 and

RD2, have been enqueued in the *read command queue* 33.” See Langendorf Fig. 4, col. 8 lines 51-54. Therefore, Langendorf actually teaches away from claim 1 by requiring at least two queues and only one command either write or read, within each queue. Therefore, claim 1 as amended is patentably distinguishable from Langendorf.

Claims 2, 4-9, and 15-17 all depend from allowable base claim 1, therefore, claims 2, 4-9, and 15-17 are patentably distinguishable from Langendorf.

At least similar arguments to those above can be made for claims 29-47, therefore, claims 29-47 are patentably distinguishable from Langendorf.

Applicant thinks the Examiner for allowance of claims 3 and 10-14.

CONCLUSION

No additional claim fees are necessary as claims 37-47 have already been paid for with the fees paid for claims 18-28. In light of the forgoing, reconsideration and allowance of the claims is earnestly solicited. The applicant would be receptive to a telephone interview if the Examiner feels this would assist in the prosecution.

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Amendments to the Figures:

The attached replacement sheet for Figure 2 will replace all prior versions of Figure 2 in the application: